

Amendments to the Title

Please amend the title as follows:

METHOD OF MAKING ALUMINUM MATRIX COMPOSITE WIRE

Amendments to the Specification

Please amend the specification as follows:

On Page 1 of the specification, insert before the first line the following new section:

Cross Reference to Related Applications

This application is a continuation of U.S. Application No. 09/616741, filed July 14, 2000, now allowed.

The paragraph beginning at page 2, line 1, has been amended as follows:

Important properties for performance are elastic modulus, density, coefficient of thermal expansion, conductivity, and strength. These properties are typically governed by the choice and purity of constituents (i.e., material of the metal matrix and fiber content) in combination with the fiber volume fraction. Of these properties, emphasis has been placed on the development of wires made from fibers with high tensile strength and stiffness. The focus on producing materials of high strength is driven in part by the assumption that in order for the composite to compete economically with conventional materials such as steel, its strength should be as high as possible. For example, in Ozawa Ouchi et al., "Mechanical Properties of Composite Conductors using SiC Fiber Reinforced Aluminum Composite Wires," ~~The Electricity Society National Symposium~~ The Electricity Society National Symposium, 1996, which discloses an aluminum wire reinforced with high strength fiber marketed under the trade designation "NICALON," the need for MMC wires of "high strength" for use in overhead power transmission cables is described.

The paragraph beginning at page 6, line 28 has been amended as follows:

"Cable modulus" means the elastic tensile modulus of the cable. The cable modulus is obtained by loading and unloading a cable using tensile testing apparatus to obtain a load-unload deformation curve. The cable is loaded sufficiently so that the constructional stretch of the cable has been taken up and the cable is elastically deformed. The data from the unload region of the

curve is used to calculate the cable modulus. This is further described in "Theory Testing of Wire Rope" in ~~Testing of Wire Rope~~ Theory of Wire Rope, Chapter 6, George A. Costello, Springer-Verlag (1997). The cable modulus can be calculated from measured load-displacement data using the following equation:

On page 13, please insert the following paragraph, between lines 27 and 28:

- - In some embodiments, wires according to the present invention have a modulus of at least about 42 GPa. In some embodiments, wires according to the present invention have a modulus of about 48 GPa to about 84 GPa. - -

The paragraph beginning at page 15, line 17 has been amended as follows:

The use of ultrasonic energy as a matrix infiltration aid helps to overcome a problem of incomplete matrix infiltration of the fiber tow. For example, the processes disclosed in U.S. Serial No. 08/492,960, and PCT application having publication No. WO 97/00976, published May 21, 1996, as well as U.S. Pat. App. Ser. No. 09/616,589 _____ (~~Attorney Docket No. 55675 USA 1A~~), filed on even date herewith, are methods of solving this problem.

The paragraph beginning at page 18, line 16 has been amended as follows:

Additional information regarding cables made from wires according to the present invention are disclosed in U.S. Pat. App. Ser. No. 09/616,784 _____ (~~Attorney Docket No. 55759 USA 2A~~), filed on even date herewith.